

**BEST AVAILABLE COPY
REMARKS**

This is intended as a full and complete response to the Final Office Action dated November 5, 2003, having a shortened statutory period for response set to expire on February 5, 2004. Claims 24, 26, 30-31, 33-36, 38, 42, 43, and 45 remain pending in the application and are shown above. Claims 24, 26, 30-31, 33-36, 38, 42, 43 & 45 have been considered by the Examiner and stand rejected. Reconsideration of the rejected claims is requested for reasons presented below.

Claims 24, 26, 30, 31, 33-36, 42-43 and 45 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3-5, 8, 10, 11, 13-15, 18-22 and 24-25 of copending Application No. 09/902,518. Applicants acknowledge the provisional double-patenting rejection by the Examiner and will file a terminal disclaimer as necessary when the rejection is no longer provisional.

Claims 24, 26, 31, 32-36, 38, 43 and 45 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Park, et al.*, U.S. Patent No. 5,656,337, in view of *Mase, et al.*, U.S. Patent No. 4,634,496. The Examiner asserts that it would have been obvious to modify the process of *Park et al.* with the dielectric material as taught by *Mase et al.* Applicant respectfully responds to the rejection.

Park et al. discloses treating a deposited material to have an electrical polarity and then depositing a second material having an electrical polarity opposite of the surface of the treated first material. The deposited material described in *Park et al.* comprises O₃-TEOS O₃-HMDS oxide layers with additional dielectric layers comprising boron and phosphorous doped silica glass (BPSG) (*See*, col. 3 lines 37-64, and col. 4, lines 27-36.). *Park et al.* further discloses that the plasma treatment takes advantage of the phenomenon of the deposition rate of O₃-TEOS materials, and thus, teaches away from different materials.

Mase et al. discloses a two-layer structure using an etching stopper first insulating film and a readily etched second insulating film disposed thereon, and then using a resist layer for a two step etching process through the second and first insulating films. There is no suggestion or motivation in either *Park et al.* or *Mase et al.* to exchange the two different etch resistant materials of *Mase et al.* with the polarized layers of *Park et al.*


Thus, the combination of *Mase et al.* and *Park et al.*, does not teach, show, or suggest depositing a first layer comprising silicon carbide on the semiconductor substrate, exposing the first layer to a plasma consisting essentially of an inert gas, and depositing a second layer comprising a material selected from the group of un-doped silicon glass, fluorine-doped silicon glass or silicon-carbon-oxygen based materials over the first layer, as recited in claim 24 and claims dependent thereon. Withdrawal of the rejection is respectfully requested.

The combination of *Mase et al.* and *Park et al.*, does not teach, show, or suggest depositing a silicon carbide layer on a semiconductor substrate, treating the silicon carbide layer with a plasma consisting essentially of an inert gas, and depositing a layer comprising a silicon-carbon-oxygen based material over the silicon carbide layer, as recited in claim 34 and claims dependent thereon. Withdrawal of the rejection is respectfully requested.

The prior art made of record is noted. However, it is believed that the secondary references are no more pertinent to the Applicants' disclosure than the primary references cited in the office action. Therefore, it is believed that a detailed discussion of the secondary references is not deemed necessary for a full and complete response to this office action. Accordingly, allowance of the claims is respectfully requested.

In conclusion, the references cited by the Examiner, neither alone nor in combination, teach, show, or suggest the claimed aspects of the invention. Having addressed all issues set out in the office action, applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



Keith M. Tackett
Registration No. 32,008
MOSER, PATTERSON & SHERIDAN, L.L.P.
3040 Post Oak Blvd. Suite 1500
Houston, TX 77056
Telephone: (713) 623-4844
Facsimile: (713) 623-4846
Attorney for Applicant(s)